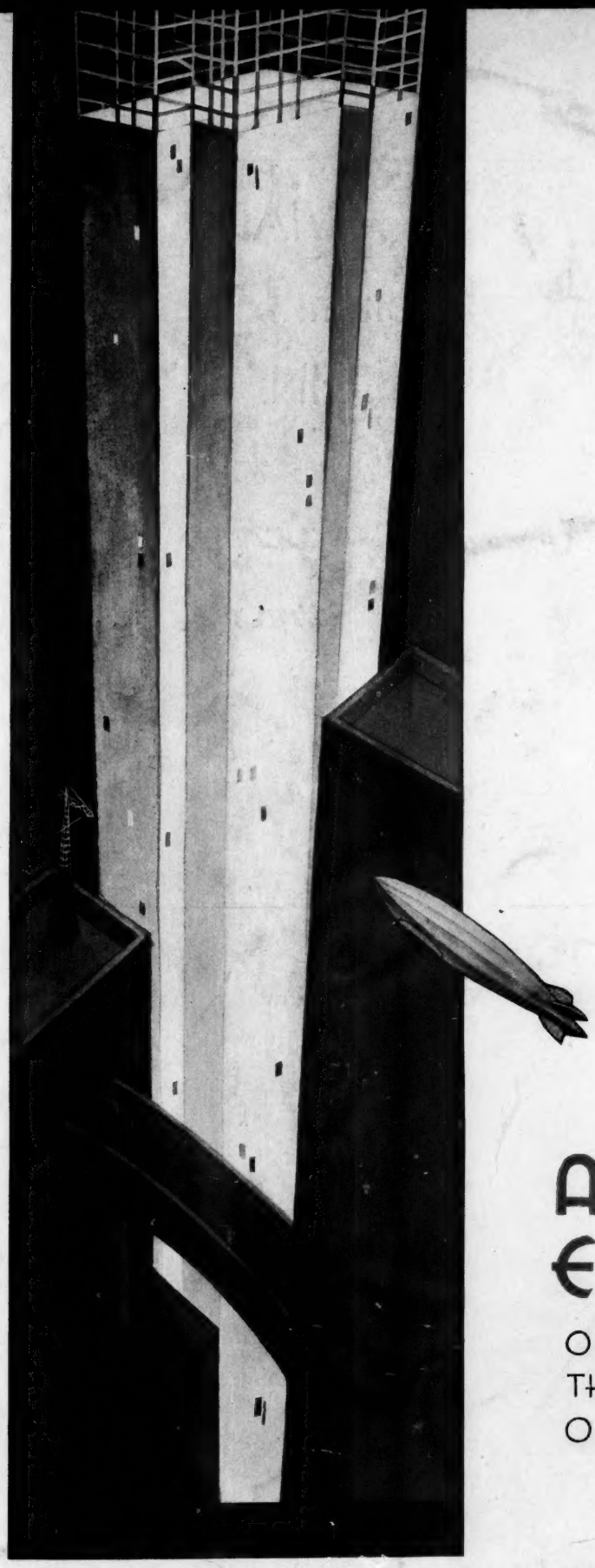

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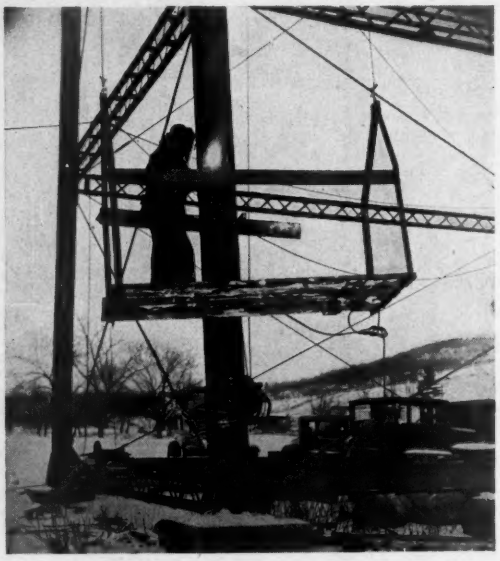

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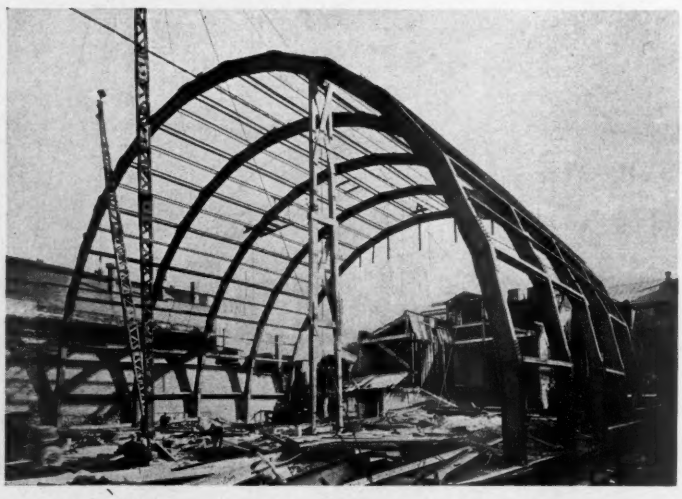

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AGAIN THE MULTIPLE DWELLING LAW

Section 300 Must be Amended

A ruling recently made by the Tenement House Department of the City of New York definitely subordinates the engineer, who performs work in connection with the design of any structure coming within the scope of a Multiple Dwelling, to the status of a draftsman.

The said Department will not approve any plans, even though filed by the owner, which bear the signature of a professional engineer.

At this writing no justification for such a ruling has been made public. Presumably the Tenement House Department is concerned primarily with the enforcement of the Multiple Dwelling Act. Section 300 of that law says that plans shall be filed by the owner in person or by an architect acting as the agent of owner. It makes no reference to, and is not concerned with, who prepares the plans. The Multiple Dwelling Act was not intended to conflict with or repeal other state laws. Engineers are retained to design many features of hotels, apartments, clubs and dormitories. Electrical, mechanical and structural design are distinct provinces of engineers. The law governing the practice of engineering specifically states that the professional engineer may obtain a seal bearing his name and that plans, specifications and reports made by him may be stamped with the said seal.

No law entitles any man to affix his name in such a manner as to indicate that the work performed by another is his. Would the Tenement House Department accept plans bearing the signature of a layman who would violate the law if he offered engineering plans as his own? What would be the Department ruling in the case of an engineer granted a power of attorney by an owner? Such power, coming within the province of personal rights, can and has been exercised too often to warrent prohibition by an arbitrary decision.

It is possible that the Tenement House Department may base its ruling on the Architects Registration Act. If so, it would be interesting to note wherein that law forbids the signatures of engineers on plans made by them. In fact the said law specifically says in section 1476, par. 2, that the article shall not be construed to affect or prevent the practice of engineering by a licensed professional engineer. Furthermore, the Board of Regents, in 1930, officially condemned an attempt to interpret the Act to the effect that engineers could not design structures of any kind. A public statement issued on February 19th of that year says that—The Board of Regents has not adopted or approved any interpretation of the law which make it a misdemeanor for a licensed professional engineer to design plans or prepare specifications for buildings, alterations or structures costing more than ten thousand dollars. In the face of this statement the Tenement House Department can scarcely invoke the Architects' Law in justification of its ruling. Building departments, whose province it is to examine the safety of structures, do accept plans from engineers, if the same do not pertain to Multiple Dwellings.

Even Mr. A. L. Brockway, member of the Architects Registration Board, whose opposition to the efforts of the New York State Society needs no comment, in a letter attacking the Past President of the Society, specifically invokes the said Par. 2 of the Architects Act to prove that the law does not restrict or prevent the practice of engineers.

It is of interest to the entire profession of engineering, civil, electrical, chemical and mechanical, to ascertain upon what grounds and what statutes the ruling is premised.. For the present one must await more definite information. It is to be sincerely hoped that the Tenement House Commissioner, who has on all occasions been eminently fair to the engineer, will give further consideration to the ruling in question.

The New York State Society must of necessity oppose the decision and hopes that all engineers will realize the full extent of the subordination of the engineer as a professional man.

Architects have contended that they do not wish to interfere with the practice of engineers. Will they offer any objection to such a ruling or will they demonstrate once and for all that the basis of their objection to engineers' legislation is not public concern but economic opportunity.

Editor

A NEW BUILDING CODE FOR NEW YORK

Committee Submits Proposals

The special committee of the Merchants Association of New York appointed, with the approval of the Mayor, to rewrite the Building Code of the City of New York has practically completed its work.

A new code has for some years been a concern of those connected or identified with building construction in New York. The product of the committee consists of some sixteen articles and approximates one hundred and twenty-five thousand words.

Copies of the proposed cade have been mimeographed and are now in the hands of the 106 members of the advisory committee, amongst which are representatives from The Bronx, New York and Queens Chapters as well as one from the Metropolitan Conference and several representatives of other groups who are also members of the New York State Society.

No attempt is made here to pass upon the work of the committee. On the whole it appears a creditable effort. The administrative section of the Code is of considerable interest to the members of the engineering profession and several paragraphs which deal with the preparation and filing of plans and specifications, and the inspection and approval of structures are herewith printed for informative purposes.

Page 1

ADMINISTRATIVE SECTIONS
TITLE AND SCOPE

1. SHORT TITLE.

This Chapter shall be known and cited as the Building Code.

2. MATTER COVERED.

All matters, affecting or relating to the construction, alteration or removal of structures, erected or to be erected in this city, are presumptively provided for in this Chapter, except in so far as such provisions are contained in the Charter, the Labor Law, the Multiple Dwelling Law, the General City Law, or the rules promulgated in accordance with the provisions of this Chapter by the Board of Standards and appeals.

3. PURPOSE.

The purpose of this Code is to provide standards, provisions and requirements for safe and stable design, methods of construction and sufficiency of materials in structures hereafter constructed, or demolished and to regulate the equipment, maintenance, use and occupancy of all structures.

4. CODE REMEDIAL.

This Code is hereby declared to be remedial, and shall be construed liberally, to secure the beneficial interests and purposes thereof.

5. ALL NEW WORK TO CONFORM.

Every structure, in the City of New York, or part thereof hereafter constructed, and the plumbing or other equipment of any structure or premises, so far as provided for in this Code, shall be constructed or demolished in conformity with the provisions of this Code.

The construction or demolition of any structure in any manner violating any provision of this Code, or any rule of the Board or any approval of the Superintendent of Buildings made and issued thereunder, is forbidden, except that the raising or lowering of any structure to meet a change of grade in the street on which it is located shall be permitted, provided the structure is otherwise unaltered.

6. UNDEVELOPED LOCALITIES.

In those parts of the city outside the fire limits in which a system of streets has not been constructed nor legally established, only so much of the requirements of this code shall apply as in the judgment of the Superintendent may be necessary for safety of life and health; but this shall

Page 2

not be construed to permit the erection of any structures to exceed in height or area the limits fixed by this Code for such structures.

7. STRUCTURES AFFECTED.

All provisions of this Code shall apply with equal force to municipal and private structures, except as may be specifically provided by law.

Page 3

ARTICLE 2, ADMINISTRATION

2. 1 GENERAL PROVISIONS

2. 1. 1 Applications for Permits

2. 1. 1. 1 Permits for Construction or Alteration

Before the construction of any structure, or any part of a structure, and before the construction of the plumbing of any structure or premises is commenced, the owner, the owner's agent, or the architect, engineer, or builder employed by the owner shall submit to the Superintendent a statement in triplicate, on appropriate blanks furnished by the Superintendent, describing the proposed work, together with such computations, plans, and detail drawings as the Superintendent may require. Such statement, constituting an application for a permit, shall be accompanied by a further statement in writing, sworn to before a notary public or commissioner of deeds, giving the full name and residence of each of the owners of the structure or proposed structure or premises, and by a diagram of the lot showing the established grade of the street, if any, on which the construction is

to be made, showing the exact location of any proposed new construction, and all existing structures that are to remain.

When plans are required to be filed, and such plans contemplate structural changes or structural work affecting public health or safety, they shall be accompanied by an affidavit of a registered architect or licensed professional engineer, stating that he has examined the plans, and that to the best of his knowledge and belief the structure, if built in accordance with the plans will conform to the Building Code and the rules of the Board, and will not be in conflict with any provision of the Charter, the Multiple Dwelling Law, the Labor Law, the General City Law or any other provision of law applicable thereto.

If a licensed professional engineer has been employed in the preparation of the structural or mechanical design, the structural or mechanical plans shall be accompanied by his affidavit stating that the structural or mechanical design drawings prepared under his supervision, to the best of his knowledge and belief, conform with the laws governing building construction except as specifically noted otherwise.

If there are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the law, the affidavit of the registered architect, or licensed professional engineer, as the case may be, shall state the nature of such difficulties or hardships.

For structures less than fifty feet high designed for minimum live loads of 75 pounds per square foot uniformly distributed, or less, the Superintendent may waive the requirement that affidavits from an engineer or architect accompany foundation plans and that such plans be accompanied by data upon test pits or borings as required by 7. 5. 1. Test Pits or Borings.

Page 4

The Superintendent may waive the requirement that an affidavit of a registered architect shall accompany all required plans in the case of one or two family residence structures and their accessory structures such as garages, and in the case of any new construction costing ten thousand dollars or less, or any alterations costing ten thousand dollars or less.

It shall be unlawful to erect any part of a structure, except the cellar or basement, below the legally established grade as laid down on the city map; provided that, in the case of a lot having more than one street frontage, when so situated that the street frontages intersect, the grade along the longest street frontage shall be used, and, when so situated that the street frontages do not intersect the grade along each frontage shall be used to one-half the depth of the lot between street frontages.

2. 1. 1. 2 Elevations

All elevations on plans accompanying applications for permits shall be referred to mean sea level at Sandy Hook established as the standard datum of the United States Coast and Geodetic Survey, which is hereby established as the City Datum.

2. 1. 1. 3 Information as to Subsoil Conditions

Applications for permits shall contain such information concerning the subsoil as may be required by the rules of the Board.

2. 1. 1. 4 Special Requirements for Plumbing Plans

2. 1. 1. 4. 1 Applications for Permits

Plans for plumbing systems shall be accompanied by a diagram approved by the Sewer Department, showing the relative elevation of the lowest fixture referred to the City Datum and the approximate inside top of the public sewer, together with a certificate from the Department of Water Supply, Gas and Electricity, giving the minimum water pressure in the main in front of the structure. The plans shall also show the number, size and location of all proposed sewer connections.

2. 1. 1. 4. 2 Plumber's Affidavit

The commencement of any plumbing or gas piping work is forbidden until the plumber has signed the specifications and made affidavit that he is duly authorized to proceed with the work. The affidavit shall contain the address of the plumber.

Page 5

No registered plumber shall sign the specification and act as agent for a plumber who is without a certificate of competency from the Examining Board of Plumbers as an employing or master plumber. Violation of this rule shall be sufficient reason for the Superintendent to cancel a certificate of registration, in accordance with Section 47, Article 4, Chapter 21 of the Consolidated Laws.

2. 1. 1. 4. 3 Specification Covering Identical Adjoining Structures

One set of plumbing or gas piping plans and specifications will be accepted for exactly similar structures when they are to be constructed on adjoining lots, are under the same ownership, and when the applications for permit to construct are filed at the same time.

2. 1. 1. 4. 4 Notice of Commencement of Plumbing and Readiness for Inspection

The plumber shall notify the Superintendent in writing when any plumbing or gas piping work is begun and when work is ready for inspection.

2. 1. 1. 5 Special Requirements for Heating Equipment Plans

Applications for permits to install furnaces coming under the provisions of **11. 2. 1., Combustion Appliances**, shall be made on blanks furnished by the Superintendent. Each application shall be accompanied by plans showing the location, size and type of the apparatus, the stack connection, the kind of fuel to be used, the method of operation and the method of preventing the emission of solids with the combustion gases. No apparatus shall be installed or used until a permit has been obtained from the Superintendent. Minor

emergency repairs, which do not increase the capacity of, or involve any substantial alteration in such apparatus and which do not involve any alteration in the method or efficiency of smoke prevention, may be made without a permit.

Upon approval of any application, a copy shall be filed with the Superintendent and the permit issued.

2. 1. 1. 6 Authorization of Owner

If the construction or plumbing is to be executed by any other person than the owner of the land in fee, the person intending to make such construction or to construct such plumbing, shall, either as owner, lessee, or in any representative capacity, accompany the application for a permit with a statement in writing, sworn to as aforesaid, giving the full name and residence of each of the owners of the land, structure or proposed structure, or premises, and reciting that

he is duly authorized to perform the work described. Such statement may be made by the agent or architect of the person hereinbefore required to make the statement.

2. 2. 4. 4 Disregard of Notice; Survey

2. 2. 4. 4. 1 Notice of Survey

Upon the refusal or neglect of the person served with notice for which provision is made in **2. 2. 4. 2, Record and Notice of Unsafe Structures and Premises** and **2. 2. 4. 3, Voluntary Abatement**, to comply with any of the requirements thereof; a further notice shall be served upon him, in the manner heretofore prescribed, notifying him that a survey of the premises named in such notice will be made at the time and place therein named, which time shall be between twenty-four and seventy-two hours from the time of the service of such notice. Such survey shall be made by three competent persons, of whom one shall be the Superintendent or an inspector designated in writing by him, another shall be an architect, appointed either by the New York Chapter or the Brooklyn Chapter of the American Institute of Architects, or by the New York Society of Architects, and the third shall be a practical builder, engineer or architect appointed by the person thus notified.

In case the person served with such notice shall neglect or refuse to appoint such surveyor, the other two surveyors shall make the survey, and in case they disagree, they shall appoint a third person to take part in such survey, who shall also be a practical builder, engineer or architect of at least ten years' practice and whose decision shall be final. The notice shall also set forth that, in case the premises referred to therein shall be reported unsafe or dangerous under such survey, the report will be placed before the Supreme Court, as indicated in the notice, and that a trial upon the allegations and statements contained in it, be the report of such surveyors more or less than is contained in the notice of survey, will be had before such court at a time and place therein named, to determine whether the unsafe or dangerous structure or premises shall be repaired and secured or taken down and removed, and that a report of such survey, reduced to writing shall constitute the issue to be placed before the court for trial.

2. 2. 4. 4. 2 Posting Report of Survey

A copy of the report of the survey shall be posted on the structure the subject thereof by the persons holding the survey, immediately on their signing such report.

2. 2. 4. 4. 3 Compensation of Surveyors.

The architect appointed by the Chapters of the American Institute of Architects or the New York Society of Architects, as hereinbefore provided, who may act on any survey called in accordance with the provisions of this article, and the third surveyor who may have been

called in the case of disagreement provided for in this section, shall each be entitled to and receive the sum of twenty-five dollars, to be paid by the comptroller upon the voucher of the Superintendent. A cause of action is hereby created for the benefit of the City against the owner of the structure surveyed, and of the lot or parcel of land on which the structure is situated, for the amount so paid with interest. The amount so collected shall be paid over to the comptroller in reimbursement of the amounts paid by him as aforesaid.

A casual review suggests directing attention to the following.

pp. 1 and 2, Par. 3 and 7—The term structures must be referred to Article I which contains definitions. "Structure means a building or construction of any kind." It is possible that the wording of par. 3 conflicts with the regulation of construction projects not under the jurisdiction of the Building Bureaus. The phraseology should be more specific.

p. 3, Par. 3—This paragraph is not entirely satisfactory as written. Engineers who perform such work should make an affidavit. However, should they not sign the plans made by them? Also should not architects make affidavits? The proposal omits electrical design, a most important feature of modern structures, wherein a mistake might prove equally as disastrous as one in the structural or mechanical design. Finally, it appears that this paragraph might be rewritten somewhat after the following manner:

Plans for structural, mechanical, electrical, chemical or other features designed by or under the direction of a licensed professional engineer or registered architect shall contain the signature of such Engineer or Architect, and shall be accompanied by his affidavit stating that such design conforms to the best of his knowledge and belief with the laws governing building construction, except as otherwise specifically noted.

p. 4, Par. 1—The paragraph refers to the requirement of an affidavit from an architect. The requirement referred to cannot be found in the

(Continued on Page 17)

ARE WE ON THE THRESHOLD OF THE AGE OF ENGINEERING?

By ADMIRAL FREDERIC R. HARRIS

The following address, prepared by Admiral Frederic R. Harris, Director of the Society, and delivered in outline at the Annual Dinner held in New York, May 16th, is so informative, especially to the young engineer and to the lay public, as to warrant publication.

The subject, "Are We on the Threshold of the Age of Engineering" perhaps requires some discussion of exactly what is meant. I understand engineering in its broadest sense as being the application of pure science to the uses of man, and in that sense, it not alone occupies an important place in our culture and civilization, but would appear to be the very roots and trunk of the tree on which our social organization spreads its branches, leaves and blossoms of human relationships.

We all know what has been wrought in our modern world and how engineering has made possible present-day industry, transportation, communication, hygiene and other necessary things, but I had not in mind, in connection with the subject of this talk, the accomplishments of engineering in these directions. I had in mind the position of the engineer and engineering in their relationship to other professions and callings and to society generally, namely: Is the great service to mankind performed by it, still that of the servant and handmaid, even as was the case in the days of the building of Solomon's temple? Are the practitioners and those who have devoted their lives to study and work in the engineering branches still condemned to be born and labor, serve and die subordinate to some ruling class, whose very names are emblazoned on the memorial tablets of structures and works they knew little or nothing about? Or are engineers on the threshold and about to emerge from the darkness of subservience into the limelight and at last to reap the harvests of their deserts? Are they at last to receive the recognition and acclaim that in the past have gone to churchmen, military leaders, politicians, lawyers and diplomats?

Civilization which, after all, is an inheritance, has passed through many stages. It has had its ups and downs. In periods in the past, it has at times reached a high state of development. In certain parts of the world, such as in Mesopotamia, Egypt and Rome and again in Asia Minor, North Africa and Southern Spain under the Caliphates, until finally in the last stage that we know of, a new development started perhaps first in the Netherlands, Holland and England and finally in these United States. These advancing and receding tides of human organizations and culture have, apparently, each—in their own way—swept on to fullsome maturity and then hesitated, come to a stop and again receded.

In looking back over the history of nations and cultures, they seem to group themselves into definite ages or eras.

The earliest ones, of which we have slight knowledge, show a dominating influence of superstition and while the soldier had his place in them, the high-priest and the warrior walk hand in hand. As we view this ancient era, we are convinced that the dominant influences were superstitious fear, fostered by King-High-Priests and this age can be fittingly described as the "Age of High-Priest and of many Gods."

A new state of things gradually intruded into the picture; came and went, but always growing stronger and stronger. This new state of things is exemplified long before the Christian era: In Egypt, in the conflict of Akhenaton the Pharaoh against the High-Priest of Ammon Ra; in Sparta, the laws of Lycurgus and the growth of the military order; then in Macedonia, crystallized into the personality of an Alexander; later came Roman legions; then world conquest, in the triumph of the Koran and the Caliphate; the great personalities, soldier-kings and generals. This era is that of "Battle and Force" and is best described as the "Age of the Soldier."

With the dawn of desire for personal liberty exemplified by the birth of Magna Charta in England, came the development of government of the people by themselves, parliaments which ruled through enacted laws, and its various modern offspring, the Dumas, Reichstags, Legislatures, Councils and Congresses we are familiar with. We entered into a new age of confusion and complexity of legal enactments into which no man might venture risking his life, liberty or property without being led by the hand and guided by legal advice —the "Age of the Lawyer."

As we look back through the history of past times—whether it be written on the stelai of Assyria, Babylonia or Egypt—in the illuminated manuscripts of medieval times, or in modern books, the names that have come down to us—the outstanding personalities, the immortals of history in each and every case are the names of the dominating class of that special age. First—the Priest-Kings and High Priests—the Sargons, Rameses, Hammurabis and Davids, succeeded by soldiers, military leaders, conquerors, and imperators—the Alexanders, Caesars and Napoleons. And, we still have with us today the "lawgivers" who fill our State Legislatures, our National Congresses and whose names are enrolled in the lists

of Governors of our States and past Presidents of the United States.

The history readily accessible and which we learned as boys at school, is such part of available recorded facts of the past as those in control of things choose to perpetuate. Those who are interested in the philosophy of history must realize that the conqueror, the victor, who annihilates the vanquished, is always historically right, because he has had within his power to record and transmit to posterity the virtues of his own conduct and the shortcomings and vices of those who went down before his might. The self-interest of any class, naturally, draws it together and gives it power for self-perpetuation which comes to an end only with dry-rot and stagnation and finally gives way to progress. You will look in vain on ancient manuscripts for the names of the designers and engineers who built the pyramids of Egypt, or the canals and irrigation works of Mesopotamia, for the same reason that even in comparatively recent times you will look in vain for the names of the designers and engineers. You will have no difficulty with the names of lawyers, soldiers or politicians, if you look over our records of past and present Presidents, Cabinet Officers, Governors, and so on.

In the transition from "Might makes right" to an orderly organization of society, the protection of individual life, liberty and property, brought about the modern so-called "Democratic State." Civilization could not have advanced to where it is today without the legal safeguards that shelter and protect individual effort, and by coordination, regulating it into coherency.

But through the very need for this legal protection, the timid solicitors and law clerks of the days before Coke have become the dominating ruling class, grinding out thousands of laws at every meeting of assemblies and congresses, so that to disengage ourselves from the intricate meshes that they have woven, we dare not move in any of our daily tasks or vocations without crying for legal guidance and assistance. A considerable proportion of our population now devote their time and energy to the non-productive work of making and interpreting laws and then of disentangling the rest of the population and guiding it through the legal mazes that grow more and more involved year by year.

Are we at the beginning of a change? Is the age of law about to give way to the age of engineering? There are many signs that point that way and the developments of the last few years point increasingly to the fact that the engineer is, in the future, not only to serve in his vocation as the "hewer of wood and the drawer of water," but must prepare himself also for recognition by organized civilization and to receive full credit for his work.

One of the outstanding signs of this change is evidenced by our conception of higher education. Each of the ages, or eras, that we have spoken of has stamped its sign indelibly on the educational system of its time. Those of us who are old enough, remember some years ago, the criticism of scientific and engineering education. It lacked culture. That euphonious phrase "Cultural Education" still had its roots deeply planted in the ancient past. Cultural training meant speculative philosophy, abstract studies and the classics. No one could be an educated person without a knowledge of the dead languages—Latin and Greek. The privileged professions entrenched themselves with jargon and terminology undecipherable to the uninitiated. The living language spoken by the people was, apparently, not expressive enough for discussions in medicine, theology, diplomacy and law. More likely, all of these sought to befog and confuse the common herd and shut it out from an understanding of the privileges by enshrouding it all by the constant use in their technical terminology of Latin and Greek phrases and words—phrases and words that have a place in philology, but should have, for every-day use, been buried centuries ago.

Only half a century ago, the Engineering Schools of the United States could have been counted on the fingers of one hand—the schools small and the number of graduates few. Those of our older, well-known Universities which deigned to have engineering courses, ignored and neglected them and the few students in them were—to the rest of the undergraduate body—"declasse' greasers." Some of our older, distinguished members who went through this period of education, to avoid the shame of so-called lack of culture, absorbed with their applied science—of necessity—some Latin and Greek. I remember a specially distinguished one, who is still with us, who excelled in bridge design and wrote a book "On Bridges;" he called it "De Pontibus" and then apologized because he said, he had studied Latin; had been assiduously for years trying to apply it and now his great chance—a title for his book. He begged his readers to bear with him, because he was fearful if he did not use it then, he would never, in his whole career, have another chance.

I often suspected that the Institution that I myself graduated from, was ashamed that it was so material and technical and as a sop to our classical scholars of that day had emblazoned on its seal "Per aspera ad astra." It probably made the founders feel easier about its standing as an Institution for higher learning.

What a difference from what we find today! Great colleges, universities and technical institutions all over the land with thousands of students in the scientific courses and in the various branches of engineering; no longer ashamed to devote their principal time and education to mastering material things. Why even staid old Yale, only the other day, disavowed the necessity for

(Continued on Page 17)

THE ENGINEER AN ARTIST

(Columbia University Recognizes Jay Downer)

Among the recent recipients of honors at the hands of Columbia University was Jay Downer, Chief Engineer of the Westchester County Park Commission, and a director in the New York State Society of Professional Engineers.

The citation reads:

DOCTOR OF SCIENCE

JAY DOWNER, Chief Engineer of the Westchester County Park Commission—native of Iowa; graduated at Princeton University with the class of 1905; for some twenty years associated as planner and leader with the development of the neighboring county of Westchester; a singularly high type of public servant, endowed with that vision and courage which multiply the force of his engineering ability and which so well equip him with the skill to unite the useful and the beautiful.

The granting of an honorary degree to an eminent engineer is not in itself novel but it is indeed rare that an engineer is recognized as a contributor to the fine arts. Mr. Downer, with the assistance of an able staff, has demonstrated that the engineer is frequently an artist whose canvas is a topography calling for a master not only in development but in imagination. The Society congratulates Dr. Downer.

The following editorial comment from the New York Times of June 6th is a tribute worth recording:

"Among the honorary degrees granted by Columbia University was one that recognized a 'singularly high type of public service.' It was that of MR. JAY DOWNER, who has employed his engineering skill in beautifying a whole county through the artistic planning and development of its highways, parks, etc.

"About all that the people hold for themselves of the great public domain, aside from the sites of the public buildings and forest reserves, is that residue which is devoted to streets, highways, parks and playgrounds. These areas in Westchester County have been the special concern of MR. DOWNER as chief engineer of the County Park Commission. It is demonstratable that he has been one of Westchester County's best assets, adding millions to property values.

"The conferring of an honorary degree upon him as a 'planner' is encouraging recognition for this new type of engineer who is thinking for the people about their future environment, as well as about their present convenience. This prophet is not without honor even in his own county."

Jay Downer has shown that the engineer, when in complete and unhampered control, is fundamentally as capable, and as appreciative, of artistic conception and creation as his fellow artists who employ language, music, marble, paint, or crayon to give expression to their inspirations. Together with Dr. David B.. Steinman, whose Mt Hope Bridge Design was last year awarded a national prize for its artistic merit, and other engineers both here and abroad who have been actually at the helm, Dr. Downer has demonstrated that the engineer can, and is expected to be, an artist as well as a scientist.

After all is not the skillful application of science art, and is not the engineer such an artist?

QUESTION OF A SOCIETY EMBLEM

Opportunity to Express Opinion

At the annual meeting of the Society, held in New York, May 16th last, the following resolution was adopted:

WHEREAS, The question of adopting an emblem has been before the Society for consideration for several years, and

WHEREAS, While the Society at Rochester in meeting assembled in September, 1930, due to a pronounced expression of disapproval, voted to lay the matter on the table, there has since been conducted by several Chapters referenda indicating in those Chapters a wish for the selection and adoption of an emblem, therefore be it

RESOLVED, That the Society shall conduct a direct poll of its membership in order to secure a definite expression of opinion, and be it further

RESOLVED, That if a majority vote indicates a sentiment in favor of the adoption of an emblem, the Executive Board shall take steps toward the selection of such emblem and shall submit several designs to the members for an expression of choice, and be it finally

RESOLVED, That no emblem shall be considered as adopted or official unless the same be approved by a majority of those voting, which majority shall be not less than 15% of the membership of the Society.

In conformity with the intent thereof the enclosed post card ballot is printed for use by members of the Society.

Kindly record your opinion and mail the enclosed card, which is inserted inside front cover.

RECOGNITION OF A GREAT ENGINEER

Honor to Othmar H. Ammann

At its Annual Commencement of New York University, held on June 10th, Othmar H. Ammann, Chief Engineer of the Port of New York Authority, was awarded the honorary degree of Doctor of Engineering.

The New York Times Editorial colums contained the following comment:

"Among the honorary degrees conferred by New York University one stands out as exceptional, and at the same time exceptionally well merited. It is that of Doctor of Engineering, awarded to Mr. OTHMAR H. AMMANN. He is the designer of the new Hudson River bridge now approaching completion. Millions of people have seen and admired that wonderful structure, but only few could have named the man who designed it.

"This has been the common experience of engineers and architects. Their creations arise before the eyes of an appreciative public, but reveal no artist's signature. Names are often casually mentioned in connection with the planning and building of a great work. But they are easily overlooked and often quickly forgotten.

"It is sometimes said that engineers and architects find sufficient reward in the work which actually comes from their hand and brain. Their monument is visible, if only men would observe it, and is more lasting than anything which could be written on a college scroll or inscribed on a medal. This may be true, as a general rule, but it is well, in a time and on occasions when conspicuous talent in the public service is recognized so freely, not to omit such achievements as this extraordinary one of Mr. AMMANN'S.

" His friends and his professional associates will be pleased that this academic distinction has come to him. As credentials for the honor, all that needs to be done is to look at his bridge."

That the outstanding accomplishments of Dr. Ammann justify the award is recognized by every engineer, but it is gratifying to find that the man principally responsible for the consummation of the greatest bridge engineering project in the world has been rewarded, not so much by a scholastic sheepskin as, by the acclaim of his fellow man. The Society congratulates its member and commends him to humanity as a great contributor to the march of civilization.

THE NEW YORK SOCIETY A GRATEFUL DEBTOR

Generous Response to Appeal for Funds

At the conclusion of the 1931 legislative session the New York State Society found its treasury depleted. In addition certain financial obligations had been incurred.

The cost of the legislative campaign was close to $2,500. Printing, postage, clerical and special help made up most of this. Practically without exception traveling and hotel expenses were defrayed by individuals and Chapters.

Faced with a deficit, but determined to meet all indebtedness, the Society appealed to the several engineering organizations for assistance. This was but reasonable as the expenses incurred were in behalf of all engineers and the legislative campaign had been possible only because of the splendid support of the various engineering groups. In the interum President Steinman pledged himself and his resources. This was indeed a magnificent act of generosity and service, and the entire engineering profession is a debtor to Dr. Steinman. It can be said without fear of contradiction that David B. Steinman has contributed more to the establishment of engineering as a learned profession and to the welfare of the professional engineer than any living man.

The appeal has met with a generous response. Owing to the comparatively recent date of the appeal, only a few societies have had a meeting of their Executive Boards. To the present the most notable response has come from the American Institute of Electrical Engineers, probably the largest in point of membership of any engineering society in America. The Institute has contributed $500. The Municipal Engineers of New York forwarded $100, the Association of Engineers of New York, Inc., $100, and the Queens County Chapter $50. Several individuals including Mr. Seth Wheeler, Jr., of Albany County, forwarded personal contributions.

Other large societies have advised that the matter will be taken up at their next meetings. To all of these the New York Society is grateful and pledges its continued services in their behalf.

SUITING OUR BRIDGES TO THE TIMES

A Story of Bridge Building for Layman and Engineer Alike

By D. B. STEINMAN, Consulting Engineer

Better bridges are being built today, just as better ships and shoes. Here is told something of the advance in the science and its part in our economic progress

The following is a reprint from the June issue of "Nations Business." The author, President Steinman, is at present on the Pacific Coast and has not been consulted. However, the information contained and the plea for artistry should interest every engineer and justify the liberty taken by the American Engineer.

Bridge building, once practiced as an adjunct to military achievement, is today developing into an economic necessity. Recent studies of traffic in Illinois showed an increase of 13,000 per cent within a few years. Traffic over the Queensboro Bridge in New York has increased from 3,000 to 87,000 cars a day, a growth of 2,800 per cent in 19 years. These are not isolated instances. The motored road-vehicle, facilitating transportation of persons and property, and the reduced cost of automobile manufacture which has transformed a former luxury into today's necessity, have made imperative not only wider and better highways but also stronger and longer bridges.

A timber beam bridge spanned the Euphrates as early as 780 B. C. The Persians, the Romans and other war-ambitious nations built bridges, examples of which are extant. But the great structures we are designing today have their inspiration, not in military ambitions or territorial gain, but in a desire to promote and extend peaceful trade and communication.

Individuality in Bridges

The bridge is the largest, the most costly, the most individual structure erected by man. No two are ever the same. Each in its own way triumphs over Nature's obstacles to man's progress. Over bridges of ever-increasing span we march onward and upward, to the peaks of achievement. A sweep of open water two miles broad offers no insurmountable obstacle today. In truth we can now say that no river is too wide to be spanned if the cost is warranted.

Bridges span the barriers between communities and nations. They serve the needs of the lowliest to exactly the same extent as those of the highest. They bring peoples into friendly cooperation. They are vital links in the highway leading to the universal brotherhood of mankind.

Our forefathers chafed at water barriers and slow-moving ferries. At first, light timber spans sufficed. But, at Uniontown, an iron chain suspension bridge was built, in 1796. Another, in 1809, with a 244-foot span, was so well constructed that it remained in use for a century before reconstruction. Its original chains of ordinary iron, each link two feet long, were forged by a blacksmith. In Wales, near the birthplace of coal and coke smelting of iron ore, a 579-foot span was later achieved. Open-hearth steel enabled daring builders to reach a span of more than an eighth of a mile.

But wrought and cast iron had about reached their limit when John A. Roebling came to this country. He built a wire mill and experimented until he succeeded in greatly strengthening his wire. Then, in 1854, he amazed the world with his 821-foot suspension span across the abyss of the Niagara. He carried the first strand across with a huge kite. So strong and stable was his bridge, utilizing the perfect principle of vine bridges of untold antiquity, that the Niagara span remained in steady use for nearly half a century, the first suspension bridge ever used for heavy railroad trains. Roebling's next suspension span, a 1,057-foot bridge over the Ohio at Cincinnati, is still in use, two additional cables having been added to carry a vastly increased load.

When Captain Eads flung his web of steel over the Mississippi at St. Louis, in 1874, his arch introduced still another material to bridge builders. Other marvelous steel arches and cantilevers followed. Forty years ago the Firth of Forth was spanned with a cantilever only 100 feet shorter than that of the Quebec Bridge. The Hell Gate arch was the world's longest arch span. It is exceeded, however, by the arch spans just erected across the harbor of Sydney, Australia, and across Kill-Van-Kull at New York.

As the culmination of his brilliant career, Roebling conceived his daring plans for the Brooklyn Bridge, a suspension span for which no precedents existed. Against tremendous opposition with only rule-of-thumb designing methods to guide him, he evolved the great bridge which became the monument to his genius.

Built by Rule of Thumb

But the science of bridge building was then in its infancy. The first crude theory of suspension-bridge analysis did not appear until too late to influence the design of the Brooklyn Bridge. According to modern analysis, the stiffening trusses of that structure are grossly inadequate. Nevertheless the Brooklyn Bridge, designed by empirical judgment and rule-of-thumb, has been carrying, after a generation of service, two or three times the load for which it was planned. The trusses are weak and can be replaced, but the

towers, cables and anchorages are still good for centuries.

The past 50 years have seen unprecedented achievement in bridge engineering. Greater progress has been made than in all the centuries preceding. The great bridge structures now being undertaken surpass the Brooklyn Bridge as it surpassed its forerunners. I conceive the outstanding elements of improvement in bridge design and construction have been in material, foundation, methods, theory of design, erection methods, and aesthetics. Today we are just reaping the harvest of these improvements, and that is why the greatest bridge structures have dated since the World War.

The Eads Bridge at St. Louis, completed 1874, was the first in which steel was used in bridge construction. This metal offered new and enlarged possibilities and opportunities.. The quest for an even stronger metal soon led to the development and application of alloy steels. Nickel steel was used in the Manhattan, Queensboro, Quebec, Metropolis, and Philadelphia bridges. A more economical alloy was found in silicon steel used in the Philadelphia, Carquinez, Mt. Hope, Detroit, St. Johns, and the Hudson River bridges.

High-tension Steel Developed

Finally heat-treated steel was developed for bridge work, a special process of heat treatment giving increased strength without the addition of other metals. The highest form of this high-tension heat-treated steel, permitting a working stress three times as high as that allowed on ordinary structural steel, was used in the Florianopolis Suspension Bridge in Brazil, completed in 1926. This development of steels has extended the range of economic construction of long-span bridges.

The Brooklyn Bridge and the Eads Bridge represented practically the first use of pneumatic caissons for bridge foundations. Those foundations were regarded as a great achievement. Since then the methods of sinking deep foundations have been greatly improved, and greater depths have been successfully reached. The recently completed foundations of the Carquinez Bridge in California go down through 90 feet of water in swift current to a depth of 135 feet below the water surface. In sinking the foundations of the Hell Gate Arch Bridge, a chasm was encountered in the underlying rock and this was bridged by a concrete arch built under the caissons, 70 feet below the surface of the water. Such improvements in the art of building foundations have extended the range of feasibility of bridge projects.

Bridges Are More Scientific

The mathematical theory of the analysis and design of bridges has been vastly extended and improved in recent years. The economic proportioning of a structure can be determined by modern analysis. Every pound of metal can now be placed where it will do the most good. The load capacity of a structure is now known.

The clumsy, massive designs of the past are now being outrivaled by more graceful, yet more scientific designs. Stronger and more efficient structures can now be built with a small expenditure of material. In the case of the Florianopolis Bridge, the introduction of a more scientific design produced a structure four times as rigid with only two-thirds as much metal in the stiffening truss.

Erection methods have been vastly improved in efficiency, safety and speed. The use of cumbersome falsework has been reduced to a minimum. The Brooklyn Bridge took more than ten years to build; a modern bridge of equal or greater magnitude is built in four years or less.

The artistic design of bridges has been greatly developed. Early steel bridges were purely utilitarian and some, like the Forth Bridge, were merely expressions of brutal power and strength. We are now coming to realize that bridges are an index of progress and civilization, and that any large bridge should be designed with a view to fine architectural effect. That much is due to a civilized age; to do less is to violate our responsibility to our profession, our duty to the civilization in which we live, and our obligations to the community in which the bridge is built. The highest artistic qualities of design are particularly important in a monumental bridge erected in a great metropolis. The recognition of these requirements is bringing about a new era of beauty in bridges.

The Hell Gate Bridge at New York, completed in 1917, is the heaviest bridge in the world, being designed to carry a total load of 76,000 pounds per lineal foot. Of this, 24,000 pounds per foot represents the weight of the moving trains. The remaining 52,000 pounds per foot is the weight of the structure itself—greater than the combined weights of the Manhattan and Queensboro structures, which had previously been the heaviest bridges in the world.

The Quebec Bridge, after two unsuccessful attempts, was completed in 1917. It is the world's longest cantilever span. The lessons learned from the two Quebec disasters have contributed to engineering knowledge and practice. To the world, the Quebec Bridge stands as a monument to indomitable courage and persistent determination. At the price of two great catastrophes, the world's record span length had been increased from 1,700 to 1,800 feet.

Designed Against Earthquakes

In the Carquinez Straight Bridge, completed in 1927, silicon steel compression members and heat-treated eyebars were used. This span, completing the Pacific coastal highway system extending from Canada to Mexico, was proportioned for earthquake forces and designed with special protective details. Improved erection methods made it possible to raise the central span of this bridge in place in 35 minutes. Only ten years earlier, it required 96 hours to lift the central span of the Quebec Bridge.

There are two outstanding eyebar bridges, the Elizabeth Bridge over the Danube at Budapest and the Florianopolis Bridge in Brazil. The first was

built in 1903 and the second by American engineers in 1926. The erection of the eyebar cables at Budapest took one year; at Florianopolis the eyebar cables were completely erected in two months.

As bridges have been removed from the class of public conveniences to become public utilities, toll bridges have come into being. Private capital, with initiative and vision, has been willing to invest heavily in such structures. Such enterprises are a real contribution to public welfare, and should be encouraged. Much more capital would go into bridge building did the federal officials in Washington but hold a more liberal attitude toward the subject. They could greatly add to the convenience of road traffic, open up many more localities to development, improvements and habitation, did they but withdraw their opposition to the construction of private toll bridges.

Take the case of the Mount Hope Bridge, completed in 1929, a privately owned toll bridge that is "taking the island out of Rhode Island." This bridge replaced a ferry that had been operating for 250 years. But the ferry had never carried more than 300 cars in a day, whereas the new bridge carried 10,000 cars in a single day and has since been serving 14 times the previous average ferry traffic.

205 Feet Above Water

The St. Johns Bridge, now being built at Portland, Ore., will have a main span of 1,207 feet, the longest span of any bridge west of Detroit. Its required underclearance of 205 feet, above navigable water, also establishes a record. It will be the longest suspension span built with twisted strand cables, a departure from the conventional parallel wire construction.

Following comparative designs and estimates, the suspension design was adopted for its superior efficiency, economy, and beauty. The saving over the corresponding cantilever design was $640,000.

In the layout and design of the St. Johns Bridge, the desire to obtain a beautiful public structure was a governing consideration. The selection of the suspension type, with its natural graceful cable curves and harmonic composition, was the first step in that direction. The development of the lofty steel towers (408 feet high), to give outlines in steel that would express the harmonious combination of beauty and strength, led to the adoption of Gothic forme as the dominant motif.

Each tower consists of two main vertical columns, 52 feet center to center, supplemented by outside batter legs for additional transverse bracing. The combination of vertical legs for direct load with batter legs for bracing produces a highly satisfying solution of the aesthetic problem of high tower design for suspension bridges. As dominant features of the tower design, lofty Gothic arches are provided both above and below the roadway. The effectiveness of the Gothic arches in the towers of the Mount Hope Bridge prompted the adoption and further development of this motif in the design of the St. Johns Bridge. The tower legs are of cruciform section, to give the beauty of contrasting relief as well as for structural efficiency.

A Bridge of Beauty

In character of the dominant tower design, substituting buttressed columns and arched outlines for the conventional utilitarian X-bracing; in the gracefulness and rhythm of the approach spans, supported on an impressive arcade of piers of ascending height; in the harmonious development of all the architectural features; and in the ensemble presenting a pleasing and impressive view from so many different angles, it is confidently believed that the St. Johns Bridge will establish a new mark in artistic bridge design.

That beauty can be obtained in large steel bridges without sacrificing utility or economy is demonstrated by the fact that the St. Johns Bridge, built with a four-lane roadway, is being constructed at a total cost that will leave, unexpended, a half-million dollars of the original appropriation ($4,250,000) which contemplated only a three-lane structure.

The suspension bridge, beyond its advantages of appearance, economy and longevity over other bridge types for moderate spans, is recognized as the only bridge-type economically suitable for the very longest spans. The Ambassador Bridge at Detroit, with its span of 1,850 feet (the longest thus far completed), and the record-breaking 3,500-foot span of the Hudson River Bridge at New York, rapidly approaching completion, are outstanding examples.

Now engineers propose to span the Hudson River at Fifty-seventh Street, New York City, the War Department willing, with a bridge many times the capacity of the Brooklyn Bridge, accommodating railroads and rapid transit trains as well as vehicular traffic. This would have a span of 3,600 feet, 100 feet longer than the Hudson River Bridge now building at One Hundred and Seventy-eighth Street, New York. Across the Golden Gate at San Francisco, engineers are designing a bridge to have a clear span between towers of 4,200 feet, and across the Narrows of the New York Harbor, a bridge to have a span length of 4,500 feet.

The Narrows Bridge at New York is truly a monumental conception. The towers will be of steel, since the height (800) feet practically prohibits the use of masonry. No attempt will be made to make the towers in concrete or stone; instead, every effort will be made to develop the highest artistic possibilities in a steel tower design. The appropriate and expressive vertical Gothic treatment will be applied to the architectural design of the towers. There is a distinctive beauty in steel that we are just beginning to appreciate. We have in steel a material that possesses the highest potentialities for expressing the harmonious union of beauty and strength. The full possibilities of making steel structures beautiful have not yet been realized.

ACTIONS OF INTEREST BY EXECUTIVE BOARD

Meeting Held at New York, June 3rd.

Voted to publish in pamphlet form for distribution the address of President Steinman to the American Society of Civil Engineers at Norfolk, May 14, 1931.

Authorized the President to appoint a special committee of outstanding engineers representing the civil, mechanical, electrical and chemical branches of engineering, to co-operate with Chairman F. H. Zurmuhlen in a drive for membership.

Authorized the President to augment the special committee on the Revision of Constitution. The membership of that committee now consists of H. A. Kidder, Chairman, New York; R. J. Smyth, Bronx; E. A. McKenna, Queens; F. H. Zurmuhlen, Richmond; H. W. Watt, Westchester; R. J. Burtley of Suffolk and Geo. Hutchinson of Orange.

Discussed briefly the proposed building code for the City of New York. Referred the matter to the Chapters within that city.

Approved, subject to reconsideration of name "Northern Counties Chapter," the application for charter from St. Lawrence, Clinton and Franklin Counties. In view of the existence of the present Jefferson-Lewis Chapter it was felt that the name "Northern Counties" might be confusing.

Discussed and tabled the suggestion for certificates of membership. It was felt that as in the cases of pins, buttons and emblems there are already too many marks, of such kind, for the identification of engineers. What is required and desired is more recognition for the profession as a whole. The members of the profession will be the beneficiaries of professional recognition.

Appointed Past President Sheridan, with Edgar A. McKenna as alternate, to represent the New York State Society at the meeting of the committee on a Model Uniform Registration Law.

Approved, subject to slight revision, the following resolution pertinent to the contribution of engineers to the world's greatest building project, the Empire State Building.

Great creations, whether in art, literature, science or construction, survive as monuments to their creators.

Every generation owes to posterity an obligation to record accurately and adequately the facts and data which enter into the creation of such monuments.

The Empire State Building is a monument to the constructive genius of those who made it possible. Amongst such may be noted the names of a number of individuals who contributed to the various elements of the completed structure. Of these none is more vital to the accomplished building than those who designed and erected the structural, mechanical and electrical features.

A tablet has been placed in the east lobby of the building for the purpose of recording facts and of recognizing those who brought the structure into being. This tablet, intended as a record upon which history may draw, neglects to note the names of those persons, without whose knowledge, skill and fortitude, in applying theory beyond that ever before attempted by man in like structure, the great monument to human ingenuity would not have been possible.

Such an omission is unfair to posterity and to those who contributed so greatly to the accomplished Empire State Building. It is more—for the record as contained on the tablet is inherently inaccurate.

The New York State Society of Professional Engineers, through the medium of its Executive Board, in meeting held June 2nd, 1931, reviewed the data above noted and adopted the following resolution:

WHEREAS, The Empire State Building is an outstanding example of the efforts of constructive genius, and

WHEREAS, Of the many elements that enter into the accomplished structure, none are so vital to its accomplishment and occupancy as the structural, mechanical and electrical features, resulting from the knowledge, skill and fortitude of Basset Jones, Homer G. Balcom, and other engineers and their associates, therefore be it

RESOLVED, That the New York State Society of Professional Engineers respectfully calls to the attention of those in authority to act, the omission of all engineers from the public record, and be it further

RESOLVED, That the said Society requests in the name of fairness and of accuracy that the profession of engineering be recognized by the inclusion of appropriate engineers in the list of creators recorded on the tablet erected for such purpose.

TO ALL MEMBERS! The publishers of the American Engineer together with the New York State Society of Professional Engineers are endeavoring to bring the circulation of your magazine up to 10,000 monthly, and in so doing to reach every licensed professional engineer in the state.
We request all members to cooperate with us in making the American Engineer magazine known to others, especially to industrial concerns, thereby demanding the recognition by the industry of the licensed engineer as the only desirable practitioner.

DR. H. H. HORNER HEADS PROFESSIONAL EDUCATION

Succeeds Dr. James Sullivan

After a long absence from duty, caused by illness, Dr. Jas. Sullivan has resigned as Assistant Commissioner in charge of Higher and Professional Education. He has been succeeded by Dr. Harlan H. Horner, who has for some time past been conducting the affairs of this important position.

The engineering profession, particularly the New York State Society of Professional Engineers, is deeply indebted to Dr. Sullivan. No man, outside the calling, has contributed so much toward the recognition of engineering as a learned profession. Throughout his tenure of office he commanded the respect and whole-hearted support of the New York State Society. His never-failing courtesy, his desire to learn the opinions and wishes of the profession, and his counsel, endeared him to every engineer who came into contact with him. The New York State Society has lost an invaluable friend whose interest in its development never waned. That his well earned retirement may bring him peace and contentment is the fondest wish of the Society, which will always be interested in him and whatever endeavors nature may indulge him.

Dr. Horner has not as yet had the opportunity to meet and know the engineers of this State as they were known to Dr. Sullivan. This will come with time and the Society looks forward with the hope of making of Dr. Horner as staunch a friend of the profession as was his predecessor in office. One must realize, of course, that the Commissioner in charge of Professional Education has much more than the wishes, and at times the whims, of any single group or profession to occupy his attentions. However, it is reasonable to believe that Dr. Horner will afford the Society an opportunity to discuss, suggest and recommend in connection with matters pertaining to the engineering profession in this State. The necessity for a fair and impartial attitude is too well appreciated, not alone by the Commissioner and the Department, but by all reasonable men to require comment.

To Dr. Horner the Society extends congratulations and best wishes and in doing so hopes that time will produce the mutual respect, appreciation and co-operation which marked the relations between Dr. Sullivan and the engineering profession of this State.

"A COURT RULES ON ENGINEERING"

Connecticut Decision Worth Noting

An interesting case, resulting from segregation and recognition of the different branches of engineering, was disposed of by the courts in Connecticut on June 3rd.

Mr. Willard S. Conlon, City Engineer of Stamford, was the defendant in a taxpayer's action brought by his predecessor in office, who sought to have Mr. Conlon removed on the ground that he was not qualified in accordance with the requirements specified for the occupant of the position.

The Stamford Charter states that the City Engineer shall be a "Practical Civil Engineer." What is a "civil engineer" and what is a "practical engineer" were matters for the court to decide.

It appears that the principal argument against the defendant was that he was a member of the American Institute of Electrical Engineers. His experience included the electrical, mechanical, sanitary and construction phases of engineering. He had lately been admitted to corporate membership in the American Society of Civil Engineers. He had been a Superintendent of Construction. He had been duly appointed by the Mayor and approved by the City Chamber. He was licensed to practice professional engineering in the State of New York. He had carried on satisfactorily and had been commended for his work since his appointment at the beginning of the year. Was he a practical civil engineer?

Two professors from Yale together with others called by the appellant attempted to describe a "practical civil engineer." After listening to arguments the court asked a few pointed questions of those who had been endeavoring to define civil and practical. Counsel for the defendant then moved to dismiss the case. The motion was granted. The court ruled that being an electrical engineer did not disqualify or prevent the defendant from being a practical civil engineer.

It is becoming more and more evident that engineers and engineering schools have made a serious mistake in attempting to recognize specialties of one profession as sister professions. The case in question suggests the controversies that will arise within the profession if it is legally divided in any

(Continued on Page 18)

CONTRIBUTIONS

Divers Soliaces

MY NEIGHBOR'S ROSES

Suggested by W. A. Stubbs, Assistant Secretary of the Society.

By Abraham Gruber

The roses red upon my neighbor's vine
Are owned by him, but they are also mine,
His was the cost, and his the labor, too,
But mine as well as his the joy, their loveliness to view.

They bloom for me, and are for me as fair
As for the man who gives them all his care.
Thus I am rich, because a good man grew
A rose-clad vine for all his neighbors' view.

I know from this that others plant for me,
And what they own, my joy may also be;
So why be selfish, when so much that's fine
Is grown for you, upon your neighbor's vine?

(The Assistant Secretary recommends that every professional engineer be required by law to commit the above to memory.)

* * *

"THE GENERALIST AND SPECIALIST"

H. A. Kidder, Vice-Pres. in the Society, contends that the philosophy of the following is indisputable:

1. The generalist is the man who knows less and less about more and more. The specialist is the man who knows more and more about less and less.

The expression is worthy of Francis Bacon or Dr. Johnson.

* * *

NEWS ITEMS

THE BOARD RECOGNIZES THE FAIR SEX

Dr. McKee please note

The first member of the gentler sex to be licensed as a professional engineer in the State of New York was passed by the Board at its meeting of May 27th. The lady in question is Mary Saroka of New York County, an alumnus of Massachusetts Institute of Technology.

Has she applied for membership in New York Chapter?

* * *

DR. H. H. HORNER SUCCEEDS DR. JAS. SULLIVAN

(State Education Department Changes)

Dr. Harlan H. Horner has been appointed to succeed Dr. Jas. Sullivan, who resigned last month, as Asst. Commissioner in Charge of Higher and Professional Education.

Chas. H. Heisler will head the Bureau of Professional Education.

CITY OF NEW YORK CONSIDERS SALARIES

Some Engineers Included in Proposal

A measure now before the Aldermanic Branch of the Municipal Assembly of the City of New York proposes to create mandatory annual salary increments for municipal employees, including engineers, whose salaries are less than $3,720 per annum.

The proposal has been introduced by Alderman Walter F. Hagen and is sponsored by the Civil Service Forum.

The fact that the measure affects employees whose present average annual salary is but $2,090 lends merit to the pleas of its sponsors.

Insofar as it applies to engineers the bill has been approved by the Association of Engineers of New York, Inc.

AMERICAN SOCIETY OF CIVIL ENGINEERS

Officers for 1932

Amongst the offices to be filled by election at the annual meeting of the American Society of Civil Engineers to be held in New York on January 20, 1932, is that of Vice-President for Zone 1, which includes the Empire State.

From several sources has come the suggestion that Arthur S. Tuttle, President of the New York Section and Consulting Engineer to the Board of Estimate of the City of New York would be an excellent Vice-President. His splendid support of the New York State Society's recommendations on the Joint Committee report and on legislative matters merits appreciation from this Society and its members.

AWARD TO "FAKE" ARCHITECT

In a recent issue of the New York Times:

Hungarian Court Sentences One of League Palace Design Winners.

Budapest, March 25.—A district court has imposed a small money fine or six days' imprisonment on Joseph Vago, charged with representing himself to be an architect and designing public buildings without possessing an architect's diploma.

Vago was one of four victorious designers in competition with hundreds of foreign architects chosen by the League of Nations to design the League's new $5,000,000 palace at Geneva.

This is not unique to architecture and has been oftimes repeated in various walks of life. Even the immortal Verdi was refused admission to the Milan Conservatory on the score of lack of musical talent. ("—what fools these mortals be.")

* * *

NEW YORK CHAPTER MEETING JULY–2nd.

A meeting of New York County Chapter will be held Thursday, July 2nd at 5:30 P. M. in Havermeyer Hall, Columbia University, New York.

The business of the meeting will be concluded at 6:30 P. M. sharp. The membership will then adjourn to the Men's Faculty Club for informal dinner at which a prominent speaker will address the Chapter. It is expected to adjourn at 8:00 thereby leaving the rest of the evening at the disposal of those who may have other engagements.

A NEW BUILDING CODE

(Continued from Page 6)

administrative sections. Par. 2, p. 3 says either an architect or an engineer shall make the affidavit.

p. 4, Par. 3—This, while desirable, will cause much confusion because of the various data throughout the City. Each Borough and most Departments have an individual datum.

p. 4, Par. 5—The approval of sewer and water supply provisions should be certified to personally, or through representative, by the Engineer in charge of Sewers and the Borough Engineer in charge of Water Supply, Gas and Electricity.

p. 5, Par. 4—Such matters should be under engineering direction and supervision.

pp. 5 and 6, Par. 6—The term engineer should be introduced in line 2.

p. 13, Par. 1—This paragraph is surely in need of revision. The safety of structures is engineering and an engineer is unquestionably the best qualified to pass upon such matters. The paragraph should be amended to include definitely an engineer designated by the New York State Society of Professional Engineers or some other accredited engineering society.

There may be other provisions which have escaped the attention of the Editor. Members in a position to obtain copies of the Code are requested to do so by addressing the Merchants Association, 233 Broadway, New York, N. Y. Please forward comments as quickly as possible to the Metropolitan Conference—New York State Society of Professional Engineers—Grand Central Terminal, New York.

Attention is directed to the fact that while structural, mechanical, electrical and other features are unquestionably engineering rather than architecture, and that while an earlier proposal required several certificates from engineers only, there is no disposition upon the part of the Engineer to eliminate the Architect.

Mutual respect upon the part of both professions will best serve the interests of the public at large.

ARE WE ON THE THRESHOLD?

(Continued from Page 8)

classical languages for an academic degree. Do not understand that I gloat in the triumph or advocate an education devoid of some things not material or utilitarian. These are an important part to a rounded education, but not the important part. In a modern state, its citizens must be useful ones and must be prepared for useful work and not be brought up to be ashamed of a useful, practical education that has as its principal object the preparation of students for a place in the world of manual labor. In this age, your engineer is, after all, a master workman, who has, by his skill, bridged the chasm between the sterility of pure science and the fertility of manual labor. By his combination of art and science he has dignified and raised up the worker from the poor down-

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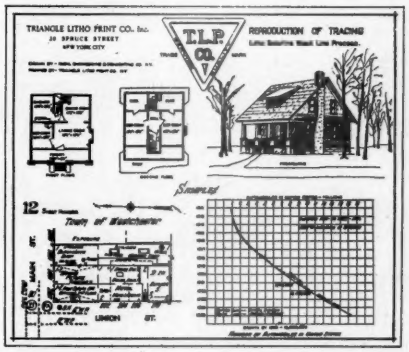

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trodden digger of ditches to the controlling force operating great powerful machines and rearing awe-inspiring monuments.

The complex, intricate machinery of civilization and the social order of things in an advanced nation like ours—the United States—leans heavier and heavier on advances in science and their application in engineering to the uses of man. From necessity, we are on the threshold of the age of engineering and engineers. These must equip themselves, not alone for material, technical tasks, but must also master the technique of expression so that their voices may be heard and their influence felt at the council board in the control of things. In the past, engineers have been content to speak through structures, processes and work created by them. If these creatures of their imagination—their dreams—came true and rose up into realities benefitting and advancing the happiness of mankind, the consciousness of that "work well done" was in itself, sufficient reward, no matter whose name—monarch, diplomat, or politician —was emblazoned on and headed the memorial tablet. Today, that is not enough. The future engineers must master vocabulary, rhetoric, logic and kindred things—the vehicles of oral and written expression—so they may cry out to the assembled multitude, "This is my work and no other man's name shall come before mine on that tablet."

Comment: The editor suggests that the above is in itself a classic, impossible without the classical knowledge the author decries. It is interesting and unusual to find one possessed of so many academic credentials demanding that the criterion be accomplishments, not certificates of scholasticism.

A COURT RULES

(Continued from Page 15)

fashion whatsoever. The mechanical, chemical, electrical, sanitary, bridge and other experts will be engaged in litigation or out of work much of the time.

The court's opinion indicated all engineering is civil or military and electrical, mechanical, chemical, sanitary and other divisions are simply specialties within the profession of Engineering.

President Steinman rendered service in behalf of the defendant, who is a member of the New York State Society of Professional Engineers.

The time is opportune for the enactment of a professional engineers' license law in the State of Connecticut. Members of the New York State Society who reside in Connecticut please take notice.

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